

# By-Cycle

Bicycle News from the  
Maricopa County Department of Transportation



December 2000

Volume 1:12

## MCDOT Employee to address Transportation Research Board

Charlene Howard McDonald, a MCDOT GIS programmer analyst, will present a paper titled *Cycling to Work in Phoenix: Route Choice, Travel Behavior, and Commuter Characteristics* at the Transportation Research Board's annual meeting.

Charlene has BS in Geography from Temple and a Master's degree in Geography with emphasis in Urban Transportation from Arizona State University. She has been at MCDOT since June of 1998 where she routinely commutes to work by bicycle.

The TRB is a unit of the National Research Council, a private, nonprofit institution that is the principal operating agency of the National Academy of Sciences and the National Academy of Engineering.

The TRB's 80<sup>th</sup> Annual Meeting will be held in Washington, D.C. from January 7-11, 2001. The workshop program is available at the following site:

<http://www4.nationalacademies.org/trb/annual.nsf>

## Sun Valley Parkway Update

The construction project on the Sun Valley Parkway has been halted until spring. It is too cold to properly apply the surface treatment.

## MCDOT Bicycle Web Page

[www.mcdot.maricopa.gov/Bicycle/](http://www.mcdot.maricopa.gov/Bicycle/)

# Meetings

December 2000

## Public Meeting Schedule

The public meeting schedule is subject to change. Please call to confirm dates and times. For on-line information go to:  
[www.maricopa.gov/](http://www.maricopa.gov/)

**12.4.2000**

## Gilbert Road Access Control and Corridor Improvement Study

Alternatives Presentation Meeting  
Hunt Highway to Williams Field Road

Location: Willis Jr. High School

401 S. McQueen

Chandler, AZ

Leo Trinidad, 602-506-2826

Time: 5 p.m. - 7 p.m.

## Pedestrian Terms

Do you know what a potelet, rambler, puffin, zebra, and a toucan are? If you need the definition of these or other pedestrian devices, check out the International Pedestrian Lexicon maintained by Geraint Jennings at:

<http://user.itl.net/~wordcraf/lexicon.html#t>

## Pedestrian Guide

This On-Line Guide outlines some of the typical concerns of pedestrians in the walking environment, and provides information on actions that can be taken by local governments and others to improve conditions for walking.

[http://bikewalk.org/pedestrian\\_guide.htm](http://bikewalk.org/pedestrian_guide.htm)

## The Radler

(a German bicyclist)

On a hot summer afternoon in June of 1922, Franz Xaver Kugler, the owner of a *Gasthaus* high in the *Deisenhofner Kugler-Alm* in Bavaria realized that he did not have enough beer to accomodate all of his guests for the day, both bicyclists as well as mountain hikers. Hence, he decided to offer his remaining beer, interestingly a dark beer, as a mixture of beer and lemon-lime soda of which he had an ample supply, and thus he nick-named his newly-found drink after the bicyclists, - hence a **RADLER**!

The Radler is a normal Munich 'Helles' or a pilsner-style beer such as Zipfer mixed with 1/2 lemon-lime soda, and the *Russ* is a mixture of 1/2 *Weizenbier*, such as *Edelweiß Hefetrüb*, and 1/2 lemon-lime soda. A Radler is generally between 2.4 and 2.6 % alcohol by volume.

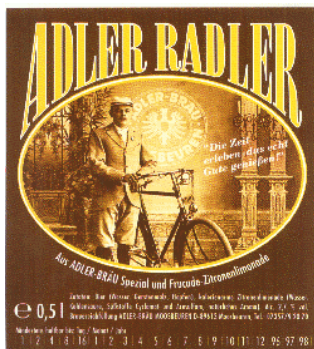
For more information about the Radler: <http://home.earthlink.net/~pasbier/Radler>

To view a unique collection of bicycle beer labels go to:

<http://members.tripod.com/~RadlerBier/>

## Pedaling History Bicycle Museum

As they say, "There's more to bicycles than you think and 'Pedaling History Bicycle Museum' is here to tell you about it!" <http://www.pedalinghistory.com/>



These Valley citizens were sighted near one of the local malls discussing the latest trends in bicycle fashions.

## Bicycling second only to driving as Mode of Travel

According to the recently released results of the Bureau of Transportation Statistics (BTS) October 2000 Omnibus Household Survey, 41.3 million Americans (20.0%) have used a bicycle for transportation in the last 30 days. Bicycling is the second most preferred form of transportation after travel by automobile, ahead of all other modes of transportation, including public transportation. Over 9.2 million (22.3%) of the 41.3 million people who bicycled did so more than ten of the 30 days measured in the survey.

BTS is the federal statistical agency for the Department of Transportation charged with improving the knowledge base for public decision making on transportation issues. BTS gathers data each month on a random basis from 1,000 households to determine the general public's satisfaction with the nation's transportation system and to prioritize improvements to the transportation system. For more information from the BTS study, go to [http://www.bts.gov/omnibus/results/october/omnibus\\_freq\\_oct.htm](http://www.bts.gov/omnibus/results/october/omnibus_freq_oct.htm).

## Fatality Rankings

### Fatally Flawed

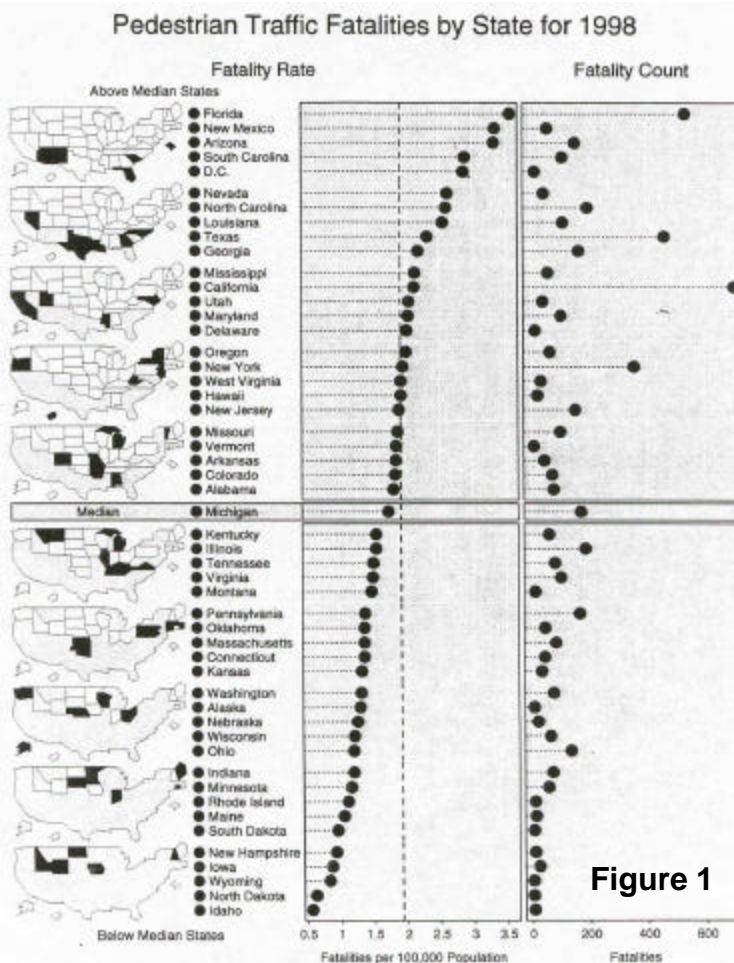
by Reed Kempton

A few years ago, while working as a bicycle advocate, I received a telephone call from a representative of a local safety organization. He asked if I had seen the latest study ranking the states by bicycle fatalities. I responded that I had not but would expect Arizona to be in the top three. The particular study he was referring to uses data from the past ten years and calculates bike fatalities per state population. He informed me that Arizona was second and seemed shocked that I was neither surprised nor upset.

He then asked one of the most ridiculous questions I had ever heard. "Now that you know this information, aren't you afraid to ride your bike here?" I don't remember my exact response but I was not invited to the press conference to promote these findings.

Every year the National Highway Traffic Safety Administration compiles data on fatal accidents. The graph on the right is typical of the information released. The fatality rates are computed based upon deaths per population. Arizona is always in the top five for both pedestrian and bicycle deaths per population. This data alone would indicate that Arizona is one of the most dangerous places to walk or bike.

This analysis has a fatal flaw. The rates are based on deaths per population, not on the number of people actually walking or bicycling. Look at Figure 1 showing pedestrian fatalities by state for 1998. The top three maps on the left side show states only in the southern half of the country. The bottom three maps show states only in the top half of the country. Is it possible that climate has something to do with accident rates?



The problem with the rankings is that it gives an unfair portrayal of reality. It is not necessarily more dangerous to walk or bike in Arizona than in most other states. It may actually be safer than many. Nearly all or streets have sidewalks and Maricopa County has more than 1200 miles of bike lanes and paths. As we add facilities, more people use them. If more people are bicycling, chances are there will be more bicycle accidents. If we could analyze accidents based on number of people bicycling, we might have realistic comparisons.

Arizona will always rank high because there are thousands of people participating in outdoor activities every day, regardless of the season. Unlike cities where it snows, Phoenix has no off-season for cycling. It is unlikely that a northern state will have many cycling fatalities in the winter when most of the bikes are in storage.

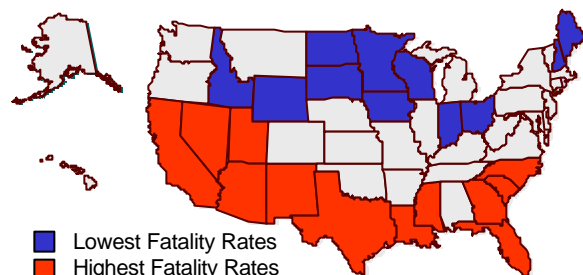


The maps in Figure 2 show 1998 and 1999 pedestrian fatalities based on deaths per population. The states in red have the highest rates. The states in blue have the lowest rates. Wyoming had four pedestrian fatalities in 1998 and 14 in 1999. This moved them from 47<sup>th</sup> to sixth.

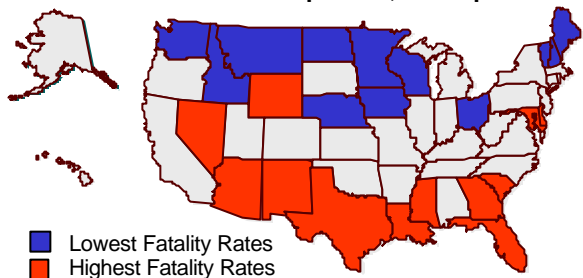
The third map shows the average median temperature of the largest city in each of the states. While it is not conclusive, there certainly is a trend for the states highest in pedestrian fatalities based on deaths per population to be the warmer states.

**Figure 2**

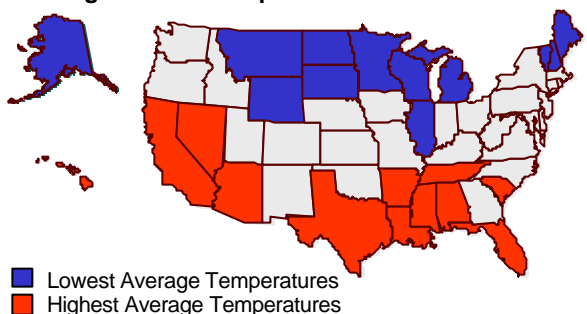
**1998 Pedestrian Fatalities per 100,000 Population**



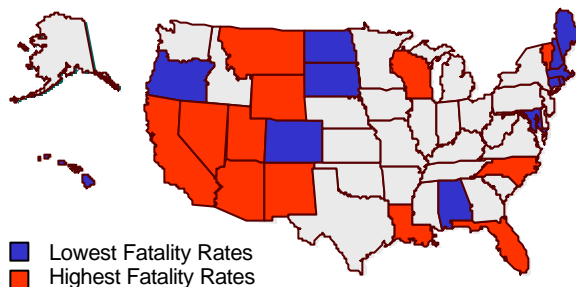
**1999 Pedestrian Fatalities per 100,000 Population**



**Average Median Temperatures**

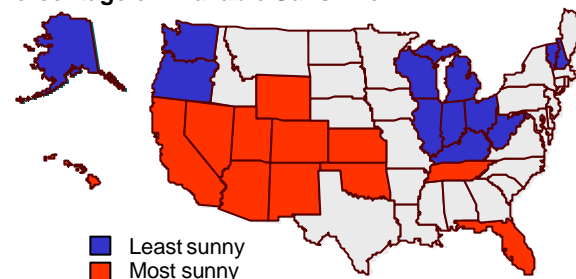


**1999 Bicycle Fatalities per 100,000 Population**



**Figure 3**

**Percentage of Available Sunshine**



The bicycle fatalities based on deaths per population (Figure 3) yields a different map. The western states seem to dominate but Florida is the worst. It is interesting to note that the states with the highest fatality rates tend to have the highest percentage of available sunshine. There is a distinct possibility that more people ride their bikes when the sun is shining than when it is not.

The Sunshine State of Florida and Arizona's Valley of the Sun have the highest average temperatures and the most sunshine. Is it a coincidence that they also have the highest rate of pedestrian and bicycle deaths? I believe that there is a direct relationship between warm temperatures, lots of sunshine, and many people bicycling. I also believe that if there are more people bicycling, there will be more bicycle-related fatalities.

Do I think we need to improve? Yes, but years from now (after we have spent a bazillion dollars on bicycle and pedestrian facilities) when the politicians point to the numbers and ask why Arizona **still** has one of the highest fatality rates, I'm going to blame it on the weather.